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Measurement of the top quark mass using quantities that are independent of the jet energy scale FORD GARBERSON, University of California, Santa Barbara, CDF COLLABORATION — We will present two techniques for measuring the top quark mass in the lepton plus jets channel using quantities independent of the jet energy scale uncertainty. One technique exploits the correlation of the transverse decay length of b-tagged jets with the top mass, and the other exploits the correlation of the transverse momentum of the lepton in the same events with the top mass. While these results are still statistically limited, their precision will improve with added data at the Tevatron and the LHC. Further, since their correlation to more conventional top mass measurement techniques is small, they will help to reduce the overall uncertainty on the top mass in combination with other results.

[X] Prefer Oral Session
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